Amendments to the Claims:

1. (Currently amended) An endoscope system having an imaging unit that images an object of observation while viewing it from a plurality of viewing points, performing image processing and arithmetic operations on image signals that represent images that the imaging unit picks up while viewing the object of observation from the viewing points, and thus achieving stereo measurement, said endoscope system comprising:

a corrected image producing means for adopting one of the images, which are picked up by viewing the object of observation from the plurality of viewing points, as a reference image, regarding the other image as a comparison image, correcting optical distortions in the reference image and comparison image, and thus producing a corrected reference image and a corrected comparison image;

an image displaying means for displaying on a screen at least the reference image or corrected reference image ~~out of the reference image, comparison image, corrected reference image, and corrected comparison image~~;

a cutting-plane reference line designating means for use in drawing a cutting-plane reference line, which specifies a cutting-plane position that determines a section of the object of observation whose section information is desired to be ~~should be~~ acquired, in the image displayed on the screen;

a corresponding point searching means for regarding a point, which lies on the cutting-plane reference line in the corrected reference image, as a point of attention, and searching the corrected ~~reference~~ comparison image for a corresponding point that is associated with the point of attention;

a section information arithmetic means for ~~detecting~~ calculating three coordinates, which represent a point in three-dimensional space whose mapping results in a corresponding point on the cutting-plane reference line according to the principles of trigonometric ~~trigonometrical~~ measurement, using the position of the point of attention in the corrected reference image and the position of the corresponding point in the corrected comparison image ~~searched for by said corresponding point searching means, and~~ for ~~thus~~ acquiring section information concerning a section of the object of observation determined with the cutting-plane position; and

a section information outputting means for providing section information according to the coordinates ~~values~~ calculated by said section information arithmetic means.

2. (Original) An endoscope system according to Claim 1, wherein the images to be displayed include at least the reference image, and the cutting-plane reference line is drawn in the reference image.

3. (Original) An endoscope system according to Claim 1, wherein the images to be displayed include at least the corrected reference image, and the cutting-plane reference line is drawn in the corrected reference image.

4. (Currently amended) An endoscope system according to Claim 1, wherein the cutting-plane reference line is drawn using a pointer that is displayed while being superposed on the reference image or the corrected reference image.

5. (Original) An endoscope system according to Claim 4, wherein once the pointer is used to designate at least one point, the cutting-plane reference line is drawn.

6. (Currently amended) An endoscope system according to Claim 1, wherein the section information provided by said section information outputting means is a contour line outlining a section.

7. (New) An endoscope system according to Claim 1, wherein:

the corresponding point searching means searches the corrected comparison image for the corresponding point that is associated with the point of attention by identifying a plurality of candidate points of the corrected comparison image, determining a degree of correspondence of each of the plurality of candidate points to the point of attention, and selecting the candidate point with the highest degree of correspondence as the corresponding point.

8. (New) An endoscope system according to Claim 7, wherein:

the plurality of candidate points are identified according to a domain of the corrected comparison image that contains an epi-polar line and a number of surrounding pixels, where the epi-polar line is a straight line that is projected from the point of attention on the corrected reference image to the corrected comparison image.

9. (New) An endoscope system according to Claim 1, wherein:

the corresponding point searching means regards a plurality of points, which lie on the cutting-plane reference line in the corrected reference image, as a corresponding plurality

of points of attention, and searches the corrected comparison image for a corresponding plurality of points that are associated with the plurality of points of attention;

for each of the plurality of points of attention, the section information arithmetic means calculates three coordinates, which represent a point in three-dimensional space whose mapping results in a corresponding point on the cutting-plane reference line according to the principles of trigonometric measurement, using the position of the point of attention in the corrected reference image and the position of the corresponding point in the corrected comparison image to acquire the section information; and

the section information outputting means provides the section information according to the coordinates calculated by said section information arithmetic means.

10. (New) An endoscope system according to Claim 9, wherein:

the cutting-plane reference line designating means draws the cutting-plane reference line responsive to a viewer input that designates two points in the reference image or corrected reference image displayed on the screen;

the two points define a segment of the cutting-plane reference line; and

the plurality of points of attention are limited being along the segment.

11. (New) An endoscope system according to Claim 1, wherein:

the cutting-plane reference line designating means draws the cutting-plane reference line responsive to a viewer input that designates two points in the reference image or corrected reference image displayed on the screen to thereby specify the cutting-plane reference line and the cutting-plane position.

12. (New) An endoscope system according to Claim 1, wherein:

the cutting-plane reference line designating means draws the cutting-plane reference line responsive to a viewer input that designates two points in the reference image or corrected reference image displayed on the screen;

the two points define a segment of the cutting-plane reference line; and

the point of attention is limited to being along the segment.

13. (New) An endoscope system having an imaging unit that images an object of observation while viewing it from a plurality of viewing points, performing image processing and arithmetic operations on image signals that represent images that the imaging unit picks up while viewing the object of observation from the viewing points, and thus achieving stereo measurement, said endoscope system comprising:

a corrected image producing component for adopting one of the images, which are picked up by viewing the object of observation from the plurality of viewing points, as a reference image, regarding the other image as a comparison image, correcting optical distortions in the reference image and comparison image, and thus producing a corrected reference image and a corrected comparison image;

an image displaying component for displaying on a screen at least the reference image or corrected reference image;

a cutting-plane reference line designating component for use in drawing a cutting-plane reference line, which specifies a cutting-plane position that determines a section of the

object of observation whose section information is desired to be acquired, in the image displayed on the screen;

a corresponding point searching component for regarding a point, which lies on the cutting-plane reference line in the corrected reference image, as a point of attention, and searching the corrected comparison image for a corresponding point that is associated with the point of attention;

a section information arithmetic component for calculating three coordinates, which represent a point in three-dimensional space whose mapping results in a corresponding point on the cutting-plane reference line according to the principles of trigonometric measurement, using the position of the point of attention in the corrected reference image and the position of the corresponding point in the corrected comparison image for acquiring section information concerning a section of the object of observation determined with the cutting-plane position; and

a section information outputting component for providing section information according to the coordinates calculated by said section information arithmetic component.